Washington Park Arboretum

BULLETIN

ELISABETH C. MILLER LIBRARY
UW Botanic Gardens
Box 354115
Seattle, WA
98195-4115

AUG 21 2008

C. 2

Published by the Arboretum Foundation

Fall 2007 **$5**

The Washington Park Arboretum Bulletin is a benefit of Arboretum Foundation membership. For information on membership or advertising opportunities, contact the Arboretum Foundation at 206-325-4510 or gvc@arboretumfoundation.org.

Washington Park Arboretum

The Arboretum is a 230-acre dynamic garden of trees and shrubs, displaying internationally renowned collections of oaks, conifers, camellias, Japanese maples, hollies and a profusion of woody plants from the Pacific Northwest and around the world. Aesthetic enjoyment gracefully co-exists with science in this spectacular urban green space on the shores of Lake Washington. Visitors come to learn, explore, relax or reflect in Seattle's largest public garden.

The Washington Park Arboretum is managed cooperatively by the University of Washington Botanic Gardens and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

Graham Visitors Center

Open 10 AM—4 PM daily;
holidays, NOON—4 PM.
Closed University of Washington holidays.
The Arboretum is accessible by Metro Transit buses #11, #43 and #48. For more information: www.transit.metrokc.gov

Arboretum Foundation

The Arboretum Foundation is a nonprofit organization established in 1935 to assure the continued existence and flourishing of Washington Park Arboretum. The Foundation provides funding, volunteer services, membership programs and public information in support of the Arboretum, its plant collections and programs. Volunteers operate the gift shop, conduct major fund-raising events, and further their gardening knowledge through study groups and hands-on work in the greenhouse or on the grounds.

2300 Arboretum Drive East, Seattle, WA 98112
206-325-4510 voice / 206-325-8893 fax
gvc@arboretumfoundation.org
www.arboretumfoundation.org
Office hours: 8:30 AM—4:30 PM weekdays
Gift shop hours: 10 AM—4 PM daily

Officers of the Arboretum Foundation
Board of Directors

Paige Miller, Executive Director

John Johnston, President
Barbara Wright, Vice President
Christine Dwight, Vice President
Mary Ann Odegaard, Vice President
Tim Diller, Treasurer
Della Balick, Secretary
Neal Lessenger, Immediate Past President

University of Washington Botanic Gardens

The University of Washington manages the Arboretum's collections, horticultural programs, facilities and education programs through the University of Washington Botanic Gardens. It owns some of the land and buildings and all of the collections.

206-543-8800 voice / 206-616-2871 fax
Office hours: 10 AM—4 PM weekdays
www.uwbotanicgardens.org

David J. Mabberley, M.A. (Oxon.), Ph. D. (Cantab.), Director

Seattle Parks and Recreation

The City of Seattle owns most of the Arboretum's land and buildings. Seattle Parks and Recreation is responsible for park functions throughout the Arboretum and manages and operates the Japanese Garden.

206-684-4556 voice / 206-684-4304 fax
Betty Jean ("BJ") Brooks, Interim Superintendent

Washington Park Arboretum Bulletin

Jan K. Whitner, Editor
Cynthia E. Duryee, Copy Editor
Constance Bollen, Graphic Design
Joy Spurr, Photography (unless otherwise noted)

Editorial Board

Cynthia E. Duryee, Writer/Editor
Polly Hankin, Edmonds Community College
Daniel J. Hinkley, Author, Lecturer, Horticultural Consultant
Steven R. Lorton, Former Northwest Bureau Chief, Sunset Magazine
Ciscoe Morris, Horticulturist
Myrna Ougland, Two Cats Nursery
Christina Pfeiffer, Horticultural Consultant
Richie Steffen, Coordinator of Horticulture, Elisabeth C. Miller Botanical Garden
Brian R. Thompson, Curator of Horticultural Literature, University of Washington Botanic Gardens
Cass Turnbull, Plant Amnesty Founder
Martha Wingate, Writer
Phil Wood, Garden Designer & Writer

Botanical Editors

Randall Hitchin, Registrar & Collections Manager, University of Washington Botanic Gardens
Martha Wingate

Fall 2007 Volume 69. Issue 3.

© 2007 The Arboretum Foundation.

ISSN 1046-8749.

Contents

2 A Season of Change—*Paige Miller*

3 Hummingbirds: Garden Jewels —*Herb Curl, Jr.*

6 Meeting Paige Miller—*Daniel J. Hinkley*

12 David Douglas in the Pacific Northwest—*Peter Stekel*

16 Lee Neff's Fall Garden— *Jan K. Whitner*

21 Enriching the Pacific Northwest's New Zealand Plant Palette —*Scot Medbury*

27 The 'Whitney' Crabapple —*Christina Pfeiffer*

30 **In a Garden Library:** Significant Works from Regional Writers —*Brian R. Thompson*, Bulletin *Book Review Editor*

ABOVE: The mounding subshrub *Jacobaea maritima* (*Senecio cineraria*), native to the western Mediterranean region, thrives in the Pacific Northwest's dry summers and cool, wet winters. Its felty, gray leaves remain fresh well into fall if the yellow flowers are cut off once they appear in late summer.

ON THE COVER: A perennial border in Lee Neff's garden celebrates the fireworks of autumn. *Aster* 'Calliope' (top right) floats over the feathery seed heads of *Miscanthus* 'Moonlight' (center), while the maroon foliage of *Persicaria* 'Red Dragon' (left foreground) drifts into the bright yellow blooms of *Helianthus* 'Lemon Queen.' Photograph by John Neff.

A Season of Change

Fall is a season of change in the Arboretum. Toward the latter half of August there is a distinct shift of air and light. It is just a little bit crisper and, just faintly, there is the unmistakable smell of fall. If it has been a dry summer, the Japanese maples have already begun to color.

This is also a season of major change for the Arboretum Foundation. We have said goodbye to Lee Neff, our fabulous Bulletin editor, who retired after ably guiding this quarterly for six years. And we have welcomed Jan Kowalczewski Whitner, a local garden writer of great knowledge and spirit, as her successor. Thank you, Lee, for your many years of service to us, and thank you, Jan, for your willingness to pick up Lee's mantle.

Fall will see some long-anticipated changes in the Arboretum. On October 11, David Mabberley and the staff of the University of Washington Botanic Gardens will plant a 'Whitney' Crabapple in the Arboretum with Mayor Greg Nickels, whose family grew this variety in their orchards in his home state of Illinois. Mayor Nickels has invited his extended family to attend the planting. For a fascinating look at the 'Whitney' itself, read Christina Pfeiffer's article on page 27.

That very same day we will have our ceremonial Groundbreaking for the Pacific Connections Garden. We are so excited to be installing the five Pacific Rim entry gardens containing plants native to Australia, Cascadia, Chile, China, and New Zealand, as well as the central meadow, the interpretive shelter, and the pathways and grading for the Cascade forest. By next summer these new gardens will be open for visitors to see. Please join Mayor Nickels, University of Washington President Mark A. Emmert and members of the Arboretum Foundation for the Groundbreaking in the Arboretum, or stop by to see the new gardens take shape over the winter and spring.

This is my first letter to all of you as the executive director of the Arboretum Foundation. I want to offer my personal thanks to Neal Lessenger, who served as the interim director and generously gave his time to mentor me in my new role. And, it has been an intense time—getting to know the volunteers, board and staff of this organization; learning the rhythms and routines of this place; and bringing in a few fresh ideas and perspectives of my own. After my first full season here, I know that I am very privileged to have joined the team working to sustain and enhance this great Arboretum. I am having so much fun.

Paige Miller

Paige Miller, Executive Director,
Arboretum Foundation

Bright orange fruits ornament *Viburnum sieboldii* in September. This vigorous deciduous shrub grows eight feet tall and remains attractive throughout most of the year, displaying creamy-white flowers in late spring and glossy, pungent leaves that turn bronze in late fall. It thrives in the Pacific Northwest when planted in a sunny area with moist, rich soil. In the Arboretum, *Viburnum sieboldii* 'Seneca' may be seen at grid 31-2E.

TIM HAGAN

PAUL L. BANNICK

TOP: The magenta blooms of *Rubus spectabilis* provide nectar to Rufous Hummingbirds migrating northwards from Mexico to Western Washington during early spring.

INSET: With its iridescent hood, squeaky vocalizations, and ability to dive 130 feet in a sheer vertical drop, the four-inch male Anna's Hummingbird adds drama to Pacific Northwest gardens.

HUMMINGBIRDS

GARDEN GEMS

Now some are year-round residents in the Pacific Northwest.

BY HERB CURL, JR.

Many people are surprised to see hummingbirds at the feeders they neglected to take down when winter arrived. In a relatively new phenomenon, Anna's Hummingbirds (*Calypte anna*) now inhabit Western Washington—particularly urban spaces—throughout the year. Males have green backs and brilliant, gold-crimson throats

(gorgets) that sometimes appear black. The females have reddish spots on their throats, green tails and white fronts with gray belly bands. This species was once confined to coastal California, but it has expanded to Seattle and points north during the last fifty years. We think it is because of warmer winters, the presence of winter-flowering plants, and an increase in bird feeders.

Rufous Hummingbirds (*Selasphorus rufus*) are far more widely distributed in Washington than Anna's, occurring everywhere except the Columbia Plateau in the center of the state. The males have orange-red gorgets and reddish backs, tails and sides, while the females resemble the female Anna's, except their tails appear reddish instead of green. They migrate in spring from southern Mexico—the longest migration of any "hummer"—but we don't often see them in the cities. It seems likely that the year-round, resident Anna's are defending their established territories against the late-arriving interlopers.

Hummingbird-Attracting Plants

NORTHWEST NATIVES

Western columbine (*Aquilegia formosa*)

Pacific madrone (*Arbutus menziesii*)

Bleeding heart (*Dicentra formosa*)

Flowering red currant (*Ribes sanguineum*)

Honeysuckles (*Lonicera ciliosa, L. involucrata*)

Native penstemons (*Penstemon fruticosus, P. rupicola* and *P. serrulatus*)

Salmonberry (*Rubus spectabilis*)

NON-NATIVES

Strawberry tree (*Arbutus unedo*)

Hardy fuchsia (*Fuchsia magellanica*)

Winter jasmine (*Jasminum nudiflorum*)*

Winter honeysuckle (*Lonicera fragantissima*)*

Winter Mahonia (*Berberis* x *media*)*

*** Winter-flowering plants**

PHOTOGRAPHS BY ALAN YEN

Three Ways Hummingbirds Feed in the Garden

Bird Feeders

Feeders should be filled with a mixture of four parts water and one part sugar, by volume, which has been brought to a boil and refrigerated. (The water-to-sugar ratio is the same as that found in most flower nectar.) In summer, change the sugar water weekly, and clean the feeder with hot water to prevent the growth of a mold that can injure the birds.

TOP: *Lonicera ciliosa*, native to forests in the maritime Pacific Northwest, is a deciduous vine growing 30 feet long with prolific orange tubular flowers that attract both Anna's and Rufous Hummingbirds. Planted near trees and shrubs, it proves a rampant climber.

BELOW: Bees and butterflies, as well as hummingbirds, enjoy the nectar produced by *Aquilegia formosa*, a wildflower found in a wide variety of habitats throughout western North America. Its red sepals and gold petals are edible; Native Americans apply its mashed leaves to insect bites and aching joints.

In winter, clean it every two weeks. The water-sugar mixture can freeze in very cold weather, so be sure to check it regularly.

Insects and Spiders

In addition to using feeders, hummingbirds survive the winter by feeding on insects and spiders, and by remaining dormant overnight. This dormancy is called "winter torpor" and resembles hibernation, in which the body temperature drops, and breathing, heartbeat and metabolism slow down.

Nectar-Bearing Plants

Selecting a variety of spring-, summer- and winter-flowering plants ensures a continuing supply of nectar throughout much of the year (see page 4).

Avoid planting butterfly bush (*Buddleja davidii*), which is becoming a serious invader of woodlands, open spaces and areas near streams. Also avoid Japanese honeysuckle (*Lonicera japonica*), a significant problem plant in the eastern United States and the Midwest. ~

Herb Curl, Jr. is a retired biological oceanographer and serves on the Science and Conservation committees of the Seattle Audubon Society. The author wishes to thank Catherine Hovanic, Administrator, Washington Native Plant Society, for her assistance in providing photographs for this article.

Resources

- For more information on the Seattle Audubon Society, visit www.seattleaudubon.org.
- For the Seattle Audubon Society's guide to the birds of Washington, visit www.birdweb.org.
- For more information on Washington's native plants, visit the Washington Native Plant Society Web site at www.wnps.org.

WELLS MEDINA
NURSERY

Where Gardeners Grow

5 Acres of Superior Quality Plants

Perennials • Annuals • Shrubs • Roses
Rhododendrons • Japanese Maples

Reference Library • Knowledgeable Staff • Display Gardens
Demonstration Containers

425.454.1853

8300 NE 24th Street • Just off 520 in Medina, WA

The executive director's favorite Arboretum trees: **BACKGROUND:** In fall, the leaves of *Davidia involucrata* turn a rusty yellow tipped with maroon. Specimens may be admired at grids 21-1E, 21-3E, and 23-2E. **INSET TOP:** Chile's *Embothrium coccineum* flowers in April, attracting bees as well as hummingbirds. The tree is located at grids 8-4E and 9-4E. **INSET BELOW:** *Quercus robur* 'Concordia' has gently-lobed leaves that glow soft gold through spring and summer. Find it at grid 33-1W.

Meeting Paige Miller

By Daniel J. Hinkley

The Arboretum Foundation's new executive director chats with Dan Hinkley

DH: Paige, welcome to the Arboretum and congratulations on your new position as executive director of the Arboretum Foundation. Let's start with a bit of background information. Are you Northwest born and bred?

PM: No, I grew up on Long Island. But when I was a teenager, I came west with my family in a VW bus and visited Seattle for the first time. I just made that trip across the country again in June with my son, Winslow, after his graduation from Swarthmore College. As we neared the end of our journey, I asked him what he had enjoyed most. He said that he had liked the rugged landscape of West Virginia, the piney forest of Mississippi, and the red-rock canyon lands of Utah, but when we reached the slopes of the Cascades with their tall, misty, evergreen forests, he turned to me and said, "Now, Mom, that is beautiful."

DH: What brought you to the Pacific Northwest?

PM: Well, like Hillary, I met this guy at Yale Law School and followed him after graduation. It is my good fortune that, unlike Hillary, my destination was Seattle, not Arkansas. As my family will tell you, I have fallen in love with this place.

DH: Where did you receive your education, and what is/are your degree/degrees in?

PM: I went to college in New England, first to Smith (where I loved the botany classes that I took to fulfill my science requirement, and the canoeing class I took for spring PE) and then to Brown in Providence, Rhode Island. I majored in political science and later went to Yale Law School because of my interest in public policy.

DH: Were you familiar with, or fond of, the Arboretum before you found yourself in this position? What is, for instance, your relationship with the tree?

ABOVE: The young Paige at work in her garden.

PM: I just love the Arboretum. It is one of Seattle's great treasures.

Many years ago I worked as a volunteer transplanting cuttings at the old Pat Calvert Greenhouse. I have visited the Arboretum for years—walking the path at Foster Island, making it a destination for inland waterway kayak excursions from Lake Union, walking Azalea Way in the springtime, or sitting quietly in the Japanese Garden.

My relationship with the tree? Ah! My last name is Miller, from the German Muller. My grandfather's ancestors were sawyers in the Black Forest. My grandfather worked for a mahogany importing company in New York City. I remember walking around his yard with him as he identified the species of every tree for me. I especially loved the huge copper beech that filled the whole front yard.

He also took me around his house, pointing to each piece of mahogany furniture he had built and telling me the origin of each tree he had used to make it. I now keep my garden books in a glass-fronted bookshelf that he built nearly 100 years ago.

I associate trees or plants with someone who especially loved them or introduced me to them. So, I grow the red rose 'Crimson Glory' for my grandfather, phlox for my grandmother, and a rose-of-Sharon that was a seedling in my great-aunt's garden on Long Island. All do well on my sunny terraces on the southwest corner of Queen Anne.

DH: I realize you have been very busy getting adjusted to your new position. However, perhaps you have found the time to get out and discover a bit more of the collection. Is there any one tree that has caught your imagination during your strolls?

PM: Well, Dan, I have made a few scouting trips into the Arboretum. The late Patsy Bullitt Collins told me that she and her mother Dorothy transplanted two dove trees (*Davidia involucrata*) into the Arboretum in the early 1930s. Dorothy was a dear friend and mentor to me, so I was pleased when you told me where to find them. They were in bloom in early May, their huge white bracts hanging down, looking like giant doves among the tree's bright green leaves. More dove trees will be planted in the new Pacific Connections Garden. I think they will be spectacular.

I also enjoyed the dramatic show of the Chilean fire tree (*Embothrium coccineum*), which was ablaze in red for weeks. It has the added virtue of being "a hummingbird magnet," to quote the Arboretum's collections manager, Randall Hitchin. Oh, and I love the beautiful oak with golden yellow leaves near the Woodland Garden. Randall identified it as the English "Concordia" oak (*Quercus robur* 'Concordia').

DH: The executive director position is hardly a simple task, as it deals with several fronts—the City, members of the Foundation and volunteers, as well as the University staff. Without attempting to make this sound like a job interview, what strengths did you bring to this mountainous task from your past experiences. Would you briefly describe your past positions?

PM: Oh, I have a really checkered past, but each of my previous careers has contributed something to prepare me for this job.

In my early twenties I worked with juvenile delinquents and drug-dependent girls, and that taught me a lot of patience—an essential trait for working on public projects. Then I became an administrator, writing the state of Rhode Island's drug abuse prevention plan and administering their grants to non-profit agencies.

After I graduated from law school and worked in Philadelphia for a year, I moved to Seattle and practiced with a small firm, doing a bit of everything—drafting contracts

and doing real estate work, some litigation and some trusts and estates, etc. Then, I became the general manager of a small non-profit (the Bill Evans Dance Company), working with a staff and board of directors, putting on events, managing the budget, writing grant applications—very similar in many ways to the work I am doing now.

When my first child was a babe, I took time out and was the president of my neighborhood community council—a group similar to those in our neighboring communities of Montlake and Madison Park. That experience led to my working on the staff of the City Council and focusing on land use and transportation issues, including the preservation of greenbelts.

I left the City to run for the Seattle Port Commission. I was elected and re-elected three more times. That gave me lots of practice asking for contributions, and lots of experience appreciating and working with volunteers. I served on the Commission for 18 years and worked on many of the region's most complicated transportation issues—which was great preparation for representing the Arboretum's interests as the state decides what to do to replace the SR 520 Bridge.

I also represented the Port to its customers, particularly in China and Japan. My visits there gave me many opportunities to see and learn about their gardens. I was hooked! And so, I worked for many years as a board member and volunteer to raise funds to build the Seattle Chinese Garden—an experience that was perfect training for my new job.

So, you see, I have had a lot of different experiences over the years that have helped to prepare me for the challenges ahead.

DH: What attracted you to the Arboretum Foundation?

PM: I was looking for my next career, searching for a job and a mission that I could love. As soon as I learned about what needed

to be done here, and how I could be of use in renovating and renewing the Arboretum, I knew it was the right place for me. Gardening has always been my hobby. What luck that my passion is now my work, too!

DH: Can you describe a typical day in your life, starting with, let's say, your first cup of coffee and ending up with putting meatloaf on the table?

PM: Please don't tell Howard Schultz—but I don't drink coffee. I brew a pot of jasmine tea each morning, drink a fragrant cup or two, and pour the rest of the pot into my Chinese tea thermos to bring to the office to enjoy all day long. I am usually up by 5:30 or 6:00 in the morning to do e-mail, feed my cats and the birds, water the plants on the deck and set a hose if need be. Next, I scan the morning papers for news and stories about last night's Mariners' game while I eat a bowl of cereal, then clean up the kitchen, shower and dress and leave for the day.

No workday is typical, but here it goes! Sometimes, there is a breakfast meeting to discuss our fundraising, or to brief my boss (Board President John Johnston). Then, I spend some time at the computer to review and update my to-do list, do e-mail again, meet with the staff on volunteer activities or to plan an upcoming event like the Fall Bulb and Plant Sale, eat a cup of noodles at my desk, work on the budget or pay bills, chat with volunteers in the Gift Shop or the greenhouse, sign thank-you letters, attend a meeting with our partners from the City and/or the University, and perhaps get a moment to scan slides for the PowerPoint presentation I am creating, or to write a letter. Every once in a while I even sneak out for a walk in the Arboretum. Usually, there is a meeting at the end of the workday with a committee, the board or a prospective donor.

Frequently, I go to an evening event. If not, I arrive back on Queen Anne by 7:30 or so. I generally cook something quick, like stir-fried chicken and snow peas, and sit down with a glass of wine to eat and watch the Mariners' game with one of my kids—jumping up to end the day as I began: feeding the cats, watering the plants, cleaning up the kitchen, etc., and then heading to bed.

Weekends are for working in my garden and pea patch, cleaning house, going for walks, having friends over for dinner or going to a performance, and catching up on all the reading I didn't do during the week.

DH: The implementation of the master plan has begun and that brings obvious challenges in the way of fund-raising. Have you been initially optimistic about reaching our goals?

PM: Yes, I dove in right away to help the Board complete the fund-raising for the first phase of the Pacific Connections project. We are very, very close to having that completed and will be presenting a check to the City for just over $2 million to begin work this fall. Then, I will turn to helping the Japanese Garden Advisory Council with its campaign to finish raising the funds for the new Entry Gatehouse project, which should be under construction next year.

DH: It seems as if other institutions in Seattle—art, music, theater—get a much larger share of private funding and media attention. Do you see the Foundation attempting to put the Arboretum more on the radar of the collective consciousness of the region, or will you continue to stay the course?

PM: I think you are right—we need to make some changes. Raising the profile of the Arboretum will be an important part of my job. And, we have a perfect opportunity to do so in letting people know about the upcoming events celebrating the new Pacific

Connections Garden. We are already at work on that.

DH: What do you consider to be your greatest challenges in the next 12 months?

PM: First, is just getting to know all of the people who are connected to the Arboretum, the Foundation and our volunteer units, and to understand what they do. After that, the biggest challenges will be getting the word out about all the exciting changes that are happening at the Arboretum, strengthening the volunteer program to improve the maintenance of our trees and shrubs, representing the Arboretum in the upcoming SR 520 Bridge mediation process, and, of course, raising money to support and renew the Arboretum.

DH: If you were granted three wishes for the Arboretum today, what would they be? You also get a bonus wish for yourself as a "welcome aboard."

PM: My first three wishes are:

A battalion of dedicated, trained volunteers, young and old, to root out the invasive ivy, blackberries and morning glory vines that threaten to overrun our beautiful trees and shrubs;

A solution to the SR 520 Bridge replacement project that enhances, rather than harms, the Arboretum;

The money, plants and resources to complete the five Pacific Connections forests in the next couple of years.

The bonus for myself: A mud-free path along Azalea Way—even in the springtime. ~

Garden designer, writer and plant hunter **Dan Hinkley** also serves on the Bulletin's editorial board.

The Berger Partnership PS
Landscape Architecture

1721 Eighth Ave. N
Seattle, WA 98109
206.325.6877

bergerpartnership.com

DIG
Floral & Garden
19028 Vashon Hwy SW
Vashon, WA 98070

206-463-5096
206-463-4048 fax
web: dignursery.com
email: dig@centurytel.net

Arboretum Shop
WASHINGTON PARK ARBORETUM

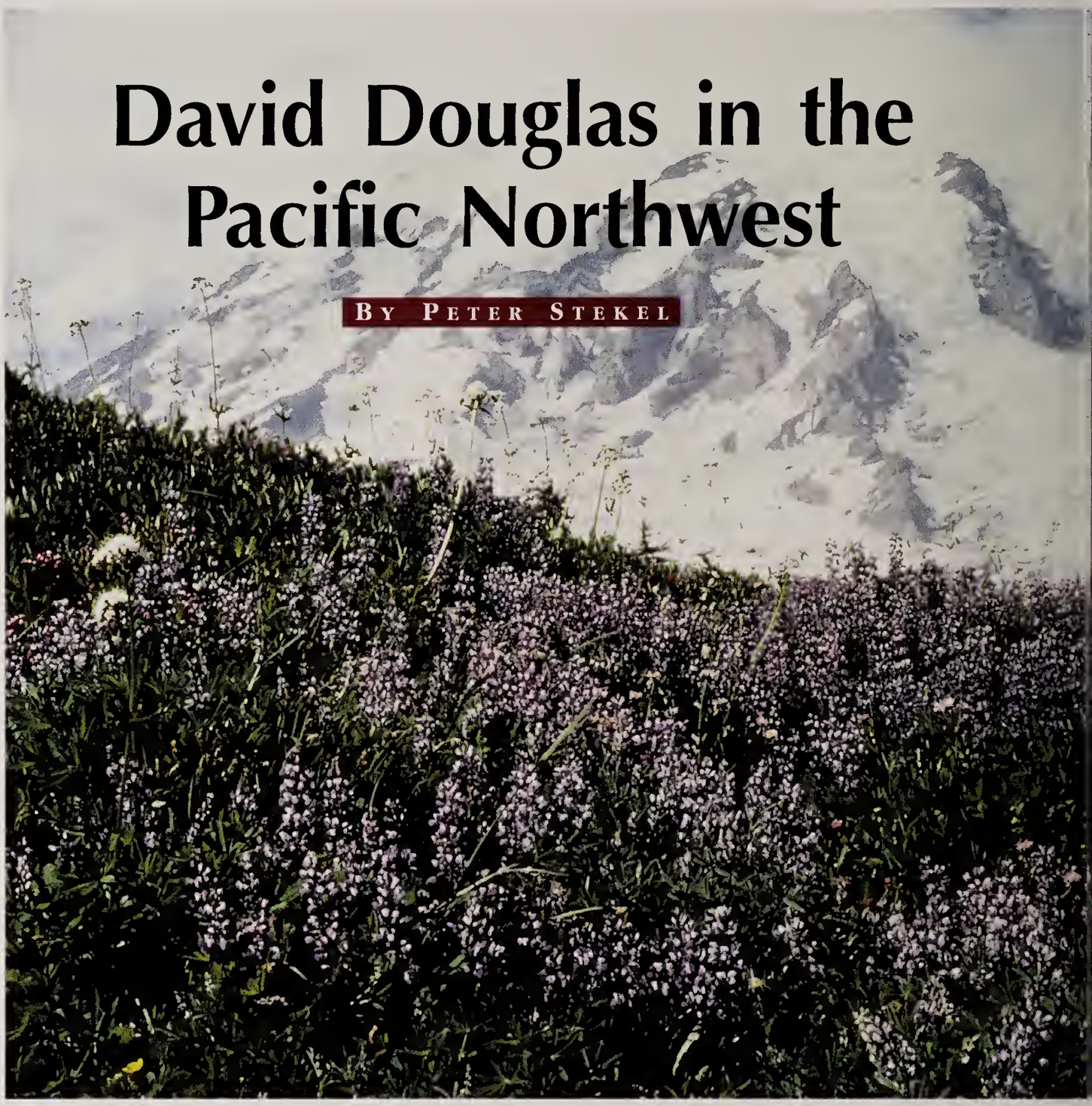
New Fall & Holiday Gifts

- Tiffany botanical lamps
- Nature-inspired silver and amber jewelry
- Michael Michaud's Table Art dining ware
- Colorful wooden recorders for kids
- And much more

Ten percent discount for members

Open daily, 10 AM to 4 PM
Graham Visitors Center
206-325-4510

David Douglas in the Pacific Northwest



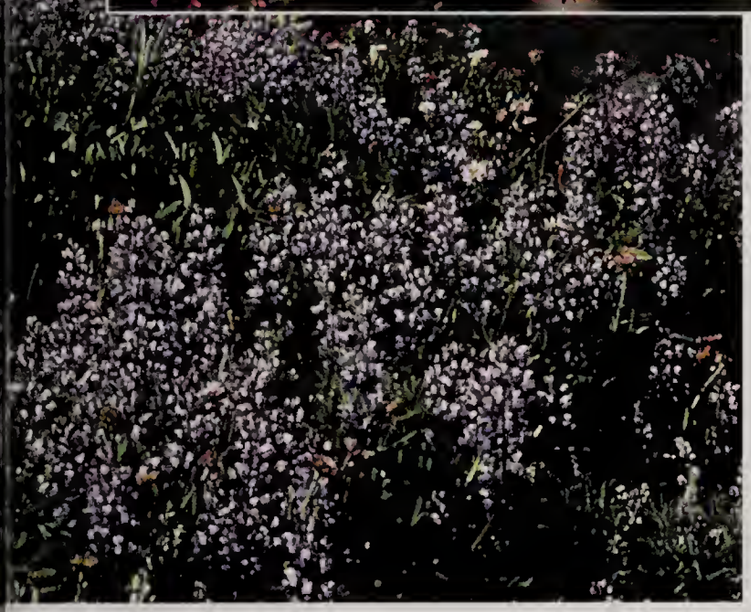
By Peter Stekel

Pacific Northwest gardeners remember David Douglas today chiefly because two ubiquitous regional species—the Douglas fir (*Pseudotsuga menziesii*) and the Douglas squirrel (*Tamiasciurus douglasii*)—are named after him. Yet the plant-hunting explorations that gained Douglas fame among his contemporaries in early nineteenth century Europe took place, in large part, in the Pacific Northwest, and many of the plants he discovered on those journeys still ornament regional gardens today.

Douglas' Explorations of the Pacific Northwest

Douglas explored the Oregon Territory* and California in two expeditions—the first of which he undertook from 1825 to 1827, and the second from 1830 to 1833. During those expeditions, Douglas traveled over 10,000 miles on foot, on horseback or by canoe, as he collected plant and animal specimens under the sponsorship of The Royal Horticultural Society.

Douglas' Pacific Northwest expeditions resulted in 217 species being introduced into cultivation in Europe. He was also the first



BACKGROUND LEFT: *Lupinus latifolius* carpets meadows of the Cascades Range. David Douglas collected bulbs, wildflowers and alpines, as well as the trees and shrubs for which he is most famous. Douglas collected 18 varieties of lupines in California and the Pacific Northwest, some of which later became prized additions in English and American gardens.

INSET TOP: Douglas considered *Vaccinium ovatum* (left), *Gaultheria shallon* and *Ribes sanguineum* to be among his most valuable plant discoveries, apart from the firs and pines he collected for their potential as timber trees.

INSET BELOW: The plant-loving public made Douglas a celebrity on his return to London from the Pacific Northwest in 1827, chiefly because of its infatuation with his introduction, *Ribes sanguineum*.

---

botanical collector to leave extensive descriptions of the region's landscape, plants and inhabitants.

Childhood and Training

Douglas was born in Scone, Scotland in 1799 to a family in modest circumstances. His parents were unusually strict and perhaps as a result Douglas developed a temperament that could prove, later in life, to be both harsh and uncompromising. This same upbringing also may have taught Douglas fortitude and a dedication to hard work—traits that served him well during his adventures as a plant collector in the Pacific Northwest.

Douglas' family valued education, and he was sent early to a parish school, although he played truant on a regular basis to fish and to watch birds. At 11 years of age, he was apprenticed as a gardener to a nearby magnate's estate. In Douglas' day, a gardener's principal tasks were not only to maintain an estate, but also to study botany and learn the practical skills associated with propagating plants. Under this early tutelage, Douglas learned how to grow rare tropical plants in the damp climate of Scotland, as well as how to cultivate wild plants collected from the Scottish Highlands. Plants became his consuming passion.

At the age of 19, Douglas secured a position at the botanic garden in Glasgow. There, in

---

***The Oregon Territory during the 1820s and 1830s comprised the present-day states of Oregon, Washington and Idaho, as well as parts of British Columbia, Montana and Wyoming.**

1823, he caught the eye of Joseph Sabine, secretary of the newly formed Horticultural Society of London (later to become The Royal Horticultural Society). With Sabine's recommendation, Douglas was chosen later that year to conduct a solo expedition to areas in present-day Canada, New York state and the Midwest. His mission was to collect North American fruit tree cultivars for propagation in the Society's greenhouses.

The Society had been created in 1804 to expand the horizons of scientific knowledge, as well as to turn a profit in garden plants. Douglas brought back from his initial expedition an assortment of marketable fruit trees, including 21 cultivars of peach trees and 10 of apples that satisfied the Society's board of directors. He also brought back a collection of other plants, including wildflowers and vegetables, which delighted the Society's botanists.

The First Pacific Northwest Expedition, 1825–1827

The directors next sent Douglas on his first expedition to the Pacific Northwest. In the summer of 1824, Douglas boarded the Hudson's Bay Company ship *William and Ann*, which crossed the treacherous Columbia River Bar in April 1825 and sailed upriver 100 miles to the Company post at Fort Vancouver. Douglas' instructions were to explore the Columbia River country and to document its flora. In addition, he was charged with sending home specimens of plants worthy of propagation in English gardens.

Under the protection of the Hudson's Bay Company, Douglas spent the next two years traveling thousands of miles seeking new plants. He usually trekked alone but sometimes was accompanied by employees of the Hudson's Bay Company, Native Americans or French-speaking trappers, some of whom later spoke admiringly of his endurance and indefatigable energy. He was dubbed "Man of Grass" by a local tribe who were intrigued by

continues on page 28

ON THE TRAIL OF DAVID DOUGLAS— AN ARBORETUM TOUR

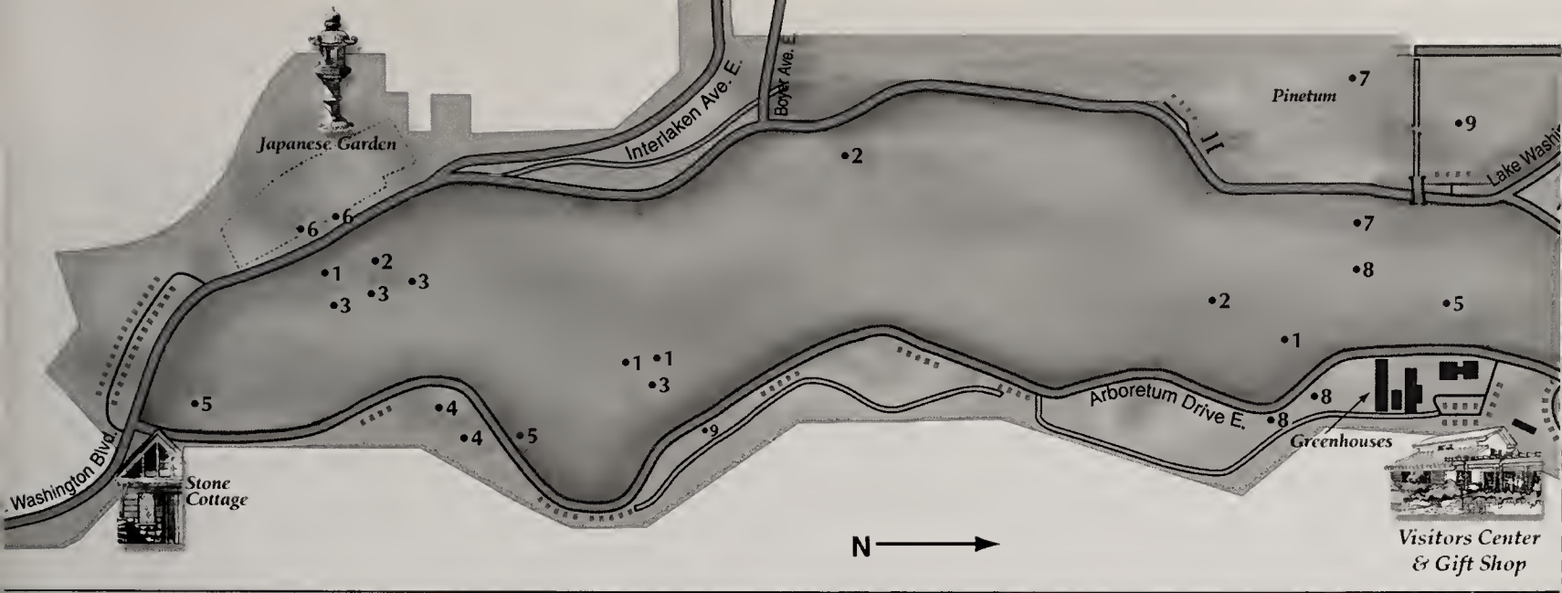
David Douglas spent five years and traveled thousands of miles to collect the following Pacific Northwest native trees and shrubs. Take an afternoon's stroll through the Arboretum to visit them at the following locations:

1. *Abies amabilis*—PACIFIC SILVER FIR. Found in moist coastal forests from southeast Alaska to Washington and Oregon, and in higher elevation areas in central Idaho. It sports distinctive gray bark with white patches, has needles notched at the tip, and grows up to 150 feet tall. Douglas first collected the Pacific silver fir's seed in 1825 along the Willamette River in Oregon, noting in his journal that it is "a tree of singular beauty. . ." Grids 4-1E, 14-4E, 16-3E, 33-3E

2. *Abies grandis*—GRAND FIR. Native to lowland forests in the Pacific Northwest. An open-branched, somewhat columnar tree growing quickly to 55 feet tall, with long, densely clustered needles that release a tangerine scent when crushed. Douglas collected its seed on a journey near the mouth of the Columbia River in 1830. After viewing a forest of *Abies grandis* growing near Mount St. Helens in southwest Washington, Douglas wrote, "... a forest of these trees is a spectacle..." Grids 5-1E, 18-1E, 22-4W

3. *Abies procera*—NOBLE FIR. Found in forests at altitudes between 2000–5000 feet in Washington, Oregon and Northern California. The bark is a lovely gray-mauve that splits with age; the cones have distinctive, downward-pointing bracts; and the tree's growth is rapid to 150–200 feet in the natural landscape. Douglas described it as the most elegant of West Coast evergreens, noting, "I spent three weeks in a forest composed of this tree, and day by day could not cease to admire it." Grids 4-1E, 5-1E, 6-1E, 16-3E

4. *Arbutus menziesii*—MADRONE. Native to coastal areas between British Columbia and California. Grows 100 feet tall in the natural landscape but often achieves only a



third of that height in garden settings. The shaggy, brown bark peels to reveal smooth pink and chartreuse wood, while the glossy green leaves are ornamented in May with clusters of bright yellow flowers. Douglas foresaw its ornamental potential for European gardens: "Do not fail to put up a treble supply of its seeds. Being evergreen, it is the more desirable," he noted to himself in his journal. Grids 7-4E, 9-5E

5. *Garrya elliptica*—COAST SILK-TASSEL. Named by Douglas after Nicholas Garry of the Hudson's Bay Company, who sometimes accompanied Douglas on plant collecting trips, this ornamental evergreen shrub is found in coastal areas in Washington, Oregon and California. It grows up to 10 feet tall and displays long, flamboyant yellow catkins in February. Grids 0-5E, 14-5E, 43-2E

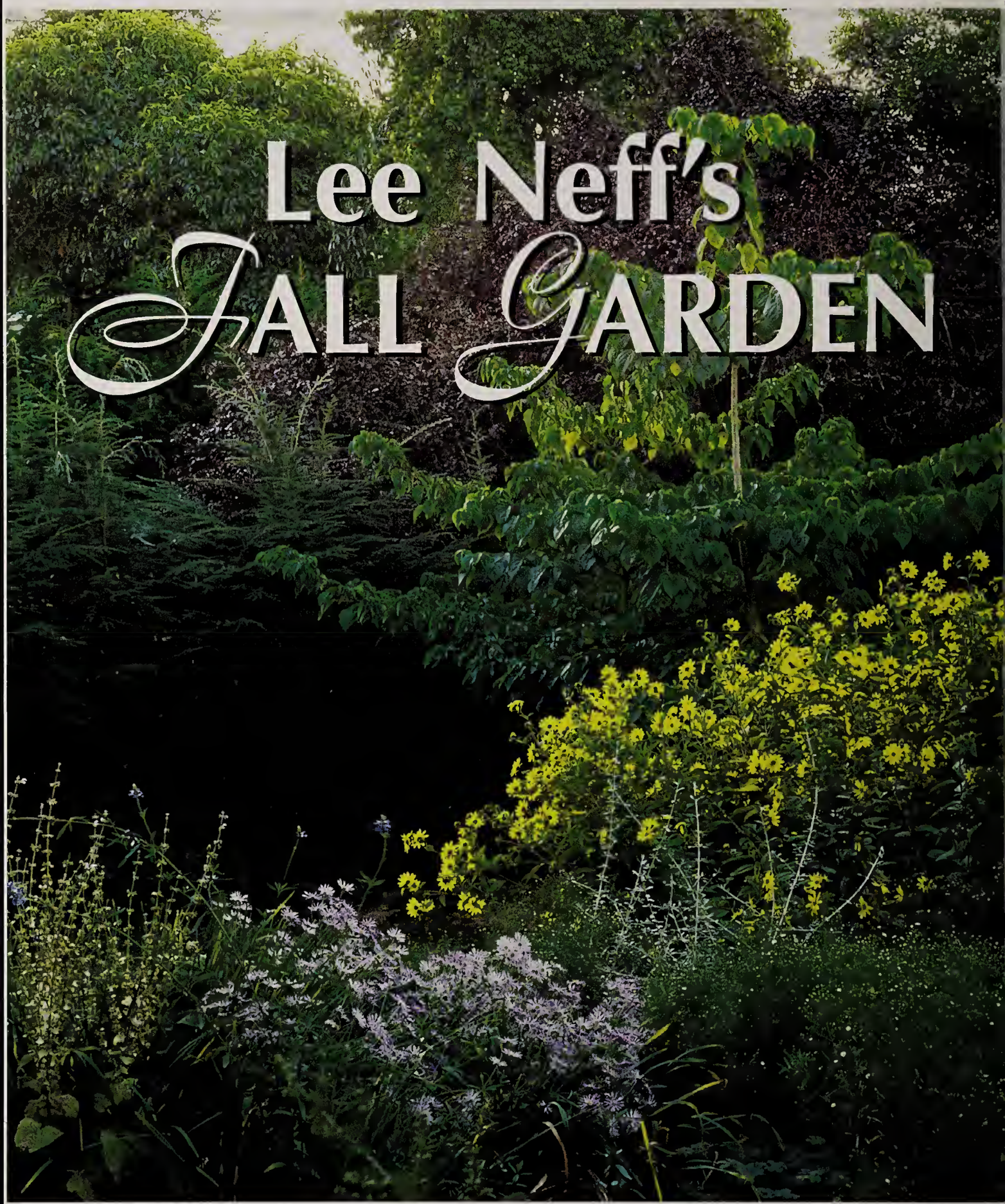
6. *Picea sitchensis*—SITKA SPRUCE. Native to narrow strips of land adjoining the Pacific Ocean, from south-central Alaska to Northern California. Its dusty-purple to light-brown bark attaches to the trunk in shaggy plates, while its cones feature scaled and wavy edges. The Sitka spruce grows rapidly to 160 feet and is especially adapted to areas with high rainfall. On first seeing this tree, Douglas immediately perceived its potential for reforesting the bare uplands of Scotland; today it comprises over 60 percent of Scotland's annual timber harvest. Grids 4-1W, 5-1W

7. *Pinus contorta*—SHORE PINE. Found in varied habitats in British Columbia, Alberta, Washington, Oregon, Idaho, Montana and Northern California. It grows 80 feet tall, has stout, curved cones, and twisted needles. Douglas was not impressed by qualities of the shore pine; his journal notes, "Little can be said in favor of this tree, either for ornament or as a useful wood." Grids 37-5W, 38-2E

8. *Pinus ponderosa*—PONDEROSA PINE. Native throughout the West, and as far east as areas in Nebraska and Texas. Cracked, gray bark, cones with bracts three inches long, and blunt-tipped needles with a zesty scent distinguish this tree, which grows up to 250 feet tall in natural settings. Douglas, who may have collected its seed first near Spokane, Washington in 1830, pronounced it "very elegant." Grids 33-5E, 34-5E, 38-2E

9. *Pseudotsuga menziesii*—DOUGLAS FIR. Range extends from southern British Columbia to Northern California and east to the Rocky Mountains. The bark is a rough, cracked gray, the cones feature long bracts, the needles have blunt tips, and the tree grows up to 300 feet tall. Douglas was not the first to describe the fir that bears his name (Archibald Menzies had noted it while a member of George Vancouver's company of exploration to the north Pacific Coast in 1792), but he was the first to successfully send back its cones and seeds to England. He described the Douglas fir as "... one of the most striking objects in nature... it will prove a most beautiful addition to English Sylva ..." Grids 41-4W, 17-5E

More Pacific Northwest native trees and shrubs collected by David Douglas are located in the Arboretum's native matrix, among them: *Acer circinatum* (Vine maple), *Acer macrophyllum* (Big-leaf or Oregon maple), *Berberis aquifolia* (Oregon grape), *Gaultheria shallon* (salal), *Ribes sanguineum* (Flowering red currant) and *Vaccinium ovatum* (Evergreen huckleberry). ∾



Lee Neff's Fall Garden

ABOVE: *Aster* x *frikartii* 'Monch' (lower left) acts as an understory in early fall to a young specimen of *Idesia polycarpa*. Native to Japan and China, this tree adds ornamental touches to the garden virtually year round with its stippled gray bark, glossy green leaves that turn bright yellow in fall, and scarlet berries that persist through winter. All photographs by John Neff.

By Jan K. Whitner

Snipping, shaping and rearranging—gardeners perform these tasks to make their gardens look beautiful. Editors use the same skills to bring a piece of writing to perfection. When a dedicated ➤

ABOVE: The crimson-pink leaves of *Acer griseum* glow in late November; its flaking, cinnamon-colored bark remains attractive throughout the year. This decorative, small maple grows 20 to 25 feet tall, often with multiple trunks, and requires full sun and moist soil in the Pacific Northwest.

INSET: *Ilex aquifolium* 'Ferox' (upper left) provides year round structure in a shady corner. In fall, its glossy leaves with their cream margins make a striking contrast to the *Chrysanthemum* 'Bronze Elegance' (center) that spills over the garden steps.

gardener also possesses uncommon editing abilities, we can expect her garden plan to exhibit structure, balance, pacing and some beautifully placed grace notes—the same kinds of qualities, in fact, to be found in a piece of well-polished writing.

Lee Neff edited the "Washington Park Arboretum Bulletin" from 2001 to 2007. Before and during the years she shaped the publication, Lee also planted and tended a shy acre of land in Seattle, situated in a well-established neighborhood near the southwest corner of Lake Washington. She built her garden on a structure consisting of specimen evergreens and magnolias that had been planted by previous owners during the 1930s and 1940s. (See "Mrs. Grinstead's Legacy" by Lee C. Neff, "Washington Park Arboretum Bulletin," Spring 2001.)

Today, those same trees provide a sheltering backdrop to the series of rock gardens, woodland spaces and semi-formal garden rooms planted by Lee. She connected the various garden spaces in a design that flows as it weaves. An open slope facing south and west displays collections of plants that require daylong sun, sharp drainage and plenty of air circulation. The graveled, stony

ABOVE: *Berberis* (*Mahonia*) x *media* 'Charity' grows 10 feet tall in full sun and moist soil. The holly-like leaves are arranged in rosettes around shaggy stems; during particularly cold winters they sometimes turn a fiery red. The bright yellow flowers are honey-scented, appear in late fall, and remain through the

mounds on which they are planted graduate into several garden rooms planted around compact lawns. Canopies of cedars, hollies and magnolias create high shade for the combinations of deciduous trees, shrubs, perennials and groundcovers that distinguish these areas. Woodland plants flourish in the deeper patches of shade sited between and around the garden rooms.

And in each of these separate-yet-connected spaces, carefully-selected and perfectly positioned plants act as the grace notes of the garden. Lee began her garden as a celebration of the fall and winter, so during those seasons its flowers and foliage glow in ruby reds, steely blues, deep russets and bronzy golds. Over the years John Neff, an accomplished photographer and Lee's husband, created a photographic portrait of the Neff garden in fall.

Lee and John recently moved to a part-time country home near Kingston on Bainbridge Island. The old farmhouse, built in 1928, sits on two acres of land with sweeping water and mountain views. Lee expects her new garden to be different in character from the one they left behind. What's her vision for the new site? "We plan to leave some of the

ABOVE: An area in the rock garden is anchored by a sprawling *Eucomis* 'Sparkling Burgundy.' Its strappy leaves set off a *Calluna vulgaris* cultivar (upper right), while *Allium spirale* (center left) blooms above the groundcover *Thymus polytrichus* (*praecox*) 'Minus.'

land as natural landscape. Part of it we'll plant in fruit trees, hedges, vegetable plots and berry bushes. . . . a garden to share with my 'grandgirls' and the rest of my family." ~

ABOVE: In July *Hydrangea paniculata* 'Floribunda' displays pure white blooms that reach up to 18 inches in length. The flowers are tinged with a dusty light pink by late autumn.

INSET: *Dahlia* 'David Howard' *Actaea* (formerly *Cimicifuga*) *racemosa* and late sunflowers tangle together in a large perennial bed in early September. 'David Howard' has received an Award of Garden Merit from the Royal Horticultural Society for its prolific, burnt-orange flowers and decorative foliage. All three plants benefit from full sun and moist soil.

Enriching the Pacific Northwest's New Zealand Plant Palette

By Scot Medbury

Since its founding in the mid-1930s, the Washington Park Arboretum has served as one of the Pacific Northwest's most important trial and acclimatization gardens, introducing hundreds of plants not previously known or grown in the region. Hardy plants from New Zealand have formed a small but important part of that legacy of experimentation, such that today the Arboretum contains several of the Pacific

ABOVE: Washington Park Arboretum's New Zealand High Country exhibit is an eco-geographic display of selected plants from alpine and subalpine regions of New Zealand, particularly those found growing at Arthur's Pass in the Southern Alps region of the South Island (for the location of Arthur's Pass, see the area highlighted in black on the map of New Zealand on page 22). **INSET:** *Veronica* (*Hebe*) 'White Gem' is an evergreen shrub growing three feet tall in the New Zealand High Country exhibit; prolific white flowers appear in July.

Northwest's largest and most venerable specimens of New Zealand woody plants.

The creation of the Arboretum's Pacific Connections Garden, the plans for which include a sizeable New Zealand entry garden in the first phase, presents the opportunity not only to expand the Arboretum's New Zealand collection, but also to interpret further some of that flora's extraordinary diversity, evolutionary history and horticultural potential. The likelihood of increasingly milder winters suggests that New Zealand plants could have a more prominent place in future cultivated landscapes of the Pacific Northwest, and that continued experimentation may reveal some terrific additions to the Pacific Northwest plant palette.

Flora of Aotearoa

The New Zealand archipelago lies in the southeastern Pacific Ocean between 34 and 48 degrees latitude south, although the New Zealand botanical region proper extends to 29 and 55 degrees latitude south. The first-cited position corresponds to the area between Aberdeen, Washington, and Los Angeles on the west coast of North America. The roughly 100,000 square miles of the two main islands—the North Island and the South Island—are topographically complex, with high mountains, alluvial valleys, broad plains and active glaciers and volcanoes. New Zealand's climate is generally mild and moist, with an ever-present wind and year-round rainfall, resulting in a warm-temperate north and a cool-temperate south. The Maori named New Zealand Aotearoa ("land of the long white cloud"), inspired by a constant cloud formation over the islands. The name also reminds gardeners of the precipitation that is a persistent weather factor.

The indigenous vegetation is primarily of four broad types: 1) richly diverse forests dominated by podocarps (conifer relatives in the Podocarpaceae family), but also kauris (Araucariaceae) and broadleaved evergreen trees; 2) deeply shaded forests composed of species of southern-beech (*Nothofagus* spp. in

the family Nothofagaceae); 3) scrub vegetation typified by dense thickets of manuka (*Leptospermum scoparium*—Myrtaceae); and 4) grass or sedgelands. There are also a number of specialized vegetation types, such as mangrove swamps and the highly developed alpine fells and screes, within which grow the world's largest-flowered buttercup (*Ranunculus lyallii*—Ranunculaceae) and the famed "vegetable sheep" (*Raoulia* spp. Compositae), a genus of silvery, cushion-forming plants that appear deceptively ovine (i.e. sheeplike) from a distance.

New Zealand's indigenous flora includes nearly 2,000 vascular plant species in some 150 families. The flora is remarkable for a great many reasons, not the least of which is the extremely high rate of species endemism. More than 75 percent of New Zealand's native plants are not naturally found anywhere else—one of the highest such percentages of any flora, and evidence of New Zealand's long isolation. Like Antarctica, Australia and South America, New Zealand is a fragment of the ancient southern supercontinent, Gondwana. The Gondwanan connection may help explain

why approximately 40 percent of New Zealand seed plant genera are shared with South America. Following a final separation from Australia approximately 60–80 million years ago, ancestral New Zealand plants adaptively radiated into different habitats and evolved into different species. Since then new species arrived by flotation or wind or were carried there by birds. Today, three major floristic affinities are recognized, the Gondwanan or Paleo-Austral element, represented by fuchsias, southern-beeches and the 20 gymnosperm taxa; the Australian component, for which the manuka (*Leptospermum scoparium*) is a good example; and the Malay-Pacific element, exemplified by the world's southernmost-occurring palm, the nikau (*Rhopalostylis sapida*), and most of the 170 ferns, including eight tall tree fern species.

Other notable characteristics of the flora include the relative absence of colorful flowers and a high incidence of the following conditions: epiphytic habit, in which plants grow off the ground atop other plants; microphylly, or "small-leafedness"; dioecy, where male and female flowers are on separate plants; leaf juvenility, in which one or more leaf types in youth are replaced by a much different kind of leaf in maturity; and branch divarication, a feature of numerous, unrelated small-leaved shrubs, in which branchlets grow in a wild, zigzag fashion, interlacing with one another to create an impenetrable thicket. One theory on the adaptive significance of this last characteristic is that some of these plants with divaricating branches were better protected from herbivory by moas, a now-extinct group of large, flightless birds that would have had a difficult time gathering much of a meal from such seemingly leafless plants.

The New Zealand landscape has been dramatically altered by human beings, both

CELEBRATE THE REDS

AN ANNUAL CELEBRATION OF FALL COLOR, FINE WINES, AND NORTHWEST GARDENS

Hosted by Wells Medina Nursery

Savor wonderful award-winning vintages,
enjoy live music and cooking demonstrations,
and browse the nursery's renowned selection of plants

A wine tasting will benefit the Arboretum Foundation

WELLS MEDINA NURSERY

Saturday, October 13, Noon to 4 PM

Wells Medina Nursery • 8300 NE 24th Street • Medina

For more information, call 425-454-1853

PACIFIC CONNECTIONS GARDEN

GROUNDBREAKING CEREMONY

Please join the University of Washington Botanic Gardens, Seattle Parks and Recreation, and the Arboretum Foundation to celebrate this historic occasion at the Washington Park Arboretum

Thursday, October 11, 11:30 AM

A Pomegranate Center volunteer crafting red cedar columns for the interpretive shelter of the Pacific Connections Garden (photo courtesy Milenko Matanovic)

Watch for details on the Arboretum Foundation Web site, www.arboretumfoundation.org, or call us at 206-325-4510

Pacific Connections CAMPAIGN

Arboretum Foundation

by the Polynesians who began arriving after 750 A.D, and with greater impact, by 19th-century European colonists. Agriculture, grazing, urbanization, extractive industries and exotic plants and animals have all taken their toll on both the landscape and the biota—a story quite familiar in North America. Today, scores of native New Zealand vascular plant species are threatened or endangered, including the kaka-beak (*Clianthus puniceus*), a showy, pea-flowered shrub sometimes seen in botanic garden collections. Despite all the land cleared for grazing and farming in New Zealand, a remarkable one-quarter of the country remains in native forest. An aggressive program to put mostly cut-over land into exotic timber production, chiefly using select clones of Monterey pine (*Pinus radiata*), has allowed the country to reserve greater areas of natural forest while exceeding its domestic need for timber products.

ABOVE: *Olearia ilicifolia* is a showy evergreen shrub that grows up to five feet tall; the tough, shiny leaves are long, slender and have sharply-toothed edges; daisy-like flowers appear in summer. Specimens can be found in the New Zealand High Country exhibit.

Gardening with New Zealand Plants

New Zealanders are keen gardeners, and in recent decades have been applying their prodigious horticultural talents to the cultivation of New Zealand native plants, and to the selection of new cultivars from wild species. Generally speaking, New Zealand plants are easy to propagate and to grow. The chief limitation on the successful cultivation of New Zealand plants in the Pacific Northwest is winter hardiness, but summer water requirements are also a consideration. Unlike Seattle's sub-Mediterranean climate of winter rain and summer drought, much of New Zealand receives rainfall throughout the year, although its eastern coast has a Mediterranean climate. Therefore, many New Zealand plants grown at present in the Pacific Northwest benefit from, and in many cases require, irrigation during the summer months.

Plans for expansion of the Arboretum's New Zealand collection will build upon the collection assembled for the New Zealand High Country exhibit east of Arboretum Drive, which was developed in conjunction with the Seattle-Christchurch Sister City Committee and dedicated in 1993. Many of the plants in the existing High Country exhibit will be incorporated into the upcoming New Zealand entry garden across Arboretum Drive, where they will be joined by a host of plants new to the Arboretum's collections.

The New Zealand entry garden will be composed of a group of New Zealand plants combined with close attention paid to color, form, texture and seasonality to create an attractive ornamental display. Capitalizing on an open west-facing slope (a condition quite rare in the Arboretum) directly below Arboretum Drive, the entry garden will be planted with mostly lower-growing species and cultivars in such familiar genera as *Veronica* (*Hebe*), *Leptospermum, Phormium* and *Fuchsia*. These will be framed by taller shrubs and small trees, which might include such proven Arboretum successes as the *Griselinia littoralis* and *Podocarpus nivalis*—the latter a dieocious subalpine shrub that has grown just west of the Arboretum's Pat Calvert greenhouse since the 1950s (look for separate male and female plants; the female specimen sports small, red, yew-like "fruits" in season). Other possibilities for framing the entry garden include the mountain totara, *Podocarpus hallii*, a subalpine tree with thin, exfoliating bark; and *Phyllocladus alpinus*, another conifer that can already be seen growing in the Arboretum.

In the second phase of the Pacific Connections Garden, a much larger New Zealand display will offer visitors immersive experiences within recreations of several New Zealand vegetation types. A key vegetation type to be included is a New Zealand southern-beech forest, anchored by another proven Arboretum winner, the mountain beech (*Nothofagus solanderi* var. *cliffortioides*), half-century old specimens of which can be seen

Pacific Office Automation

thanks the many dedicated

employees and volunteers

whose hard work makes it

possible for all of us to

enjoy the Arboretum.

PACIFIC OFFICE AUTOMATION

— PROBLEM SOLVED —

www.PacificOffice.com

in the Arboretum's oak family section northeast of the Wilcox Bridge. The edges and interior glades of the vegetation types will allow the Arboretum to continue experimenting with other New Zealand *Nothofagus* species, conifers such as *Libocedrus bidwillii*, and broad-leaved evergreens such as the Hibiscus relative *Hoheria glabrata*. Of the plants so far introduced, sub-alpine plants will continue to be featured prominently. If provided with good drainage, these shrubs, sub-shrubs, groundcovers and herbs offer some of the most reliably hardy plants for the Pacific Northwest.

A word of caution is appropriate to any plant-introduction scheme, and care should be taken to avoid introducing species capable of escaping cultivation and changing the ecology of natural or near-natural systems. The Arboretum is well positioned to exclude invaders from future introductions, having pioneered the implementation of an invasive-species predictive model developed by University of Washington Professor Sarah Reichard. That said, there are hundreds of New Zealand species and cultivars yet to be introduced that will not persist outside of cultivation, and these offer tremendous potential to enrich urban landscapes in the Pacific Northwest.

Scot Medbury is president of the Brooklyn Botanic Garden in New York and has long been fascinated by the New Zealand flora. His initial interest was incubated as a teenager when he encountered specimens of *Nothofagus, Podocarpus* and other New Zealand species in the Washington Park Arboretum.

ABOVE AND INSET: *Nothofagus solanderi* var. *cliffortioides* is a fast-growing, densely-leaved mountain beech, specimens of which have flourished in the Arboretum for over 50 years near the Oak Collection.

The 'Whitney' Crabapple

By Christina Pfeiffer

The 'Whitney' crabapple is a very old cultivar whose origins date prior to 1869. Introduced by nurseryman A.E. Whitney of Franklin Grove, Illinois, it became a valued economic plant in the United States and Europe. Now offered mostly by growers of heirloom plants, its greatest attributes are its edibility (it's tasty eaten fresh or cooked) and its use as a pollinator for orchard apples.

TREES OF ANTIQUITY LLC, PASO ROBLES, CALIFORNIA

The original plant came from a cross between *Malus baccata* (Siberian crabapple) and an unknown *Malus*. It is a medium-sized tree (15 to 18 feet tall) with white to pink single flowers early in the season. The round fruit is yellow with red stripes, reminiscent of a miniature 'Gravenstein' apple.

Crabapples are generally defined as those apples with fruit smaller than 2.5 inches in diameter, most with fruit too bitter to be eaten fresh. Hundreds of cultivars have been named over this past century, and crabapples can be found in many shapes, flower colors and fruit forms.

In the Pacific Northwest, selecting the right cultivar makes all the difference between having a rugged, beautiful specimen and one that is annually defoliated by scab disease. With its collection of older trees and participation in the National Crabapple Introduction Program during the mid-1990s, Washington Park Arboretum offers a great resource for observing some of the better crabapple trees to be planted. The Pacific Northwest Great Plant Picks list includes five cultivars, and the Washington State University (WSU) Bulletin EB 1809 "Crabapples for Western Washington Landscapes" summarizes evaluation trials conducted at the WSU Mt. Vernon Experiment Station.

Christina Pfeiffer is a horticulture instructor, writer and consultant, and former Washington Park Arboretum horticulturist. She may be reached at capfeiffer@comcast.net

Resources:

- For further reading on crabapples in the "Washington Park Arboretum Bulletin" see Richard Hartlage, "Choice Crabapples for the Pacific Northwest," and Cass Turnbull, "Summer Pruning—Crabapples and Other Ornamental Flowering Trees," Summer, 2003.
- For more information on heirloom fruit trees, visit the Web site of Trees of Antiquity at www.treesofantiquity.com.

David Douglas in the Pacific Northwest

continued from page 14

his fascination with a plant they considered quite insignificant. Douglas' journal entries from this period contain appreciative descriptions of the pristine forests of the Oregon Territory. But the region, especially the Columbia Basin, was difficult to traverse, and among the giant old-growth trees, some of which would one day bear his name, the going was particularly rough.

Douglas often endured long periods of hunger. In one case, he ate all the berries and seeds he had collected; these supplies were all he had left, since by that point he had already eaten his horse. Twice on Kettle Falls on the Columbia River, Douglas lost his collections and nearly drowned when his canoe was overturned. On another occasion, while stalking a wounded deer, Douglas fell and broke a rib. After prescribing himself a single day of rest, hot tea and a swim in the cold river, he went back to work.

In April 1827 Douglas left the Oregon Territory, well-satisfied with the variety of flora he had collected. After crossing Canada on foot in four months, he boarded a Company ship in Hudson's Bay bound for England.

When he arrived in London in October 1827, Douglas immediately became a celebrity. This was partly due to the popularity of his plant introductions. The flowering red currant (*Ribes sanguineum*), for instance, earned enough during its initial year in cultivation to recoup the costs of the entire expedition. Douglas himself did not share in this monetary success, drawing a relative pittance that was expected to cover his personal expenses.

But Douglas quickly alienated his co-workers at the Horticultural Society, whom he felt were neglecting his collections. After spending two years in the field and many weeks in preparing his material for the dangerous ocean voyage to England, he found it frustrating to see his work shunted to a forgotten corner of the Society's offices, where some of the animal specimens became moth-eaten.

Douglas was increasingly unhappy with his situation and began to seek another commission to collect plants. Eventually he convinced the Society to send him back to the Pacific Northwest.

The Second Pacific Northwest Expedition, 1830–1833

In 1830 Douglas once again sailed from England, which he was never to see again. By this time, previous hardships were beginning to take a toll. His eyesight weakened, and he was described by contemporaries as looking prematurely old. Arriving in the Oregon Territory, he found that much had changed since his departure in 1827.

The site of Fort Vancouver had been moved down from the hills and onto the coastal plain to be closer to the river and shipping. The most significant change, however, had occurred in the attitude of the Native Americans. Measles and other diseases had swept through the tribes, reducing their numbers by three-quarters. They now looked upon outsiders, including Douglas, with suspicion, and it was no longer safe for the "Man of Grass" to travel alone. Finding the situation untenable, Douglas set sail for California in December 1830 and did not return to Oregon for 19 months.

In California, the governor in Monterey distrusted all foreigners and forced Douglas to wait six months for permission to travel to the interior. Douglas complained of the California weather—particularly the heat. He wrote to one correspondent: "My whole collection of this year...may amount to 500 specimens...This is vexatiously [sic] small, I am aware; but ... the season for botanizing does not last longer than three months...such is the speed with which spring advances...the plants bloom here

only for a day. The intense heat sets in about June, when every bit of herbage is dried to a cinder." Through injury, illness, fatigue and hunger, Douglas continued his work.

Douglas returned to the Pacific Northwest in October 1832. There he began to experience a blinding irritation in his eyes, but merely commented in his journal: "I had suffered so much that little hope was left for me being able to do much good for this season, at least in botany."

He was heroic at times. "Traveled 33 miles, drenched and bleached with rain and sleet, chilled with a piercing north wind; and then to finish the day experiencing the cooling, comfortless consolation of lying down without supper or fire. On such occasions I am very liable to become fretful." Another time he wrote, "I am now here, and God only knows where I may be next. In all probability, if a change does not take place, I will shortly be consigned to the tomb."

On an extended trip into British Columbia, Douglas lost his specimens and journal for the season when his boat overturned on the Fraser River. The experience seems to have had a deep impact upon his personality, and he began to wander without purpose, becoming increasingly irritable and suspicious of other people. When word reached him that his Horticultural Society employer and mentor, Joseph Sabine, had been sacked, Douglas wrote an angry letter of resignation and departed in October 1833 for Hawaii.

The Final Tragedy

During the remaining months of his life Douglas tried to salvage something of his work, even though his eyesight was deteriorating dramatically. No longer in the employ of the Horticultural Society, he guiltily continued to draw upon the Society's credit. He collected plants haphazardly throughout the islands for several months, often staying with missionaries.

On the morning of July 12, 1834, Douglas stopped to ask directions of Edward Gurney, an ex-convict who lived along the Hilo trail on the island of Hawaii. Gurney invited the botanist to breakfast and, following the meal, walked a short way with him. As they parted, Gurney pointed Douglas on the correct path, warning him of some dangerous pits used to catch wild cattle along the route.

Douglas was never seen alive again. Islanders found his body in a pit later that day, apparently fatally gored by a trapped bull. But how he had come to fall into it remains a mystery. Some felt he was the victim of robbery and murder, but Douglas had little to his name except a plant press and a change of socks. Others suspected suicide, since he had angrily severed ties with his employers, and entries in his journal from this period reflect a troubled mind. A third school of thought, citing his failing eyesight, argues Douglas fell into the pit while reaching for one last blossom.

David Douglas, Plant Hunter *Extraordinaire*

A dogged sense of duty pervades the work of David Douglas. Working alone, often in hostile environments, Douglas accomplished more in 10 years than most modern field scientists can do in a lifetime. In recognition of his contributions, he is commemorated in the scientific names of over 80 plants. Douglas remained devoted to the study of botany throughout his life and, in the end, lost that life while pursuing what he loved best—new plants. ~

Peter Stekel is currently working on a hiking guide that will be published by Falcon Press in 2008. He is the author of "The Flower Lover" (Authorhouse), the first book in a series of botanical mysteries. He lives in Seattle.

Resources:

- For more information on David Douglas' contributions to horticulture, visit the Web site of the David Douglas Botanical Garden Society www.ddbotgarden.bc.ca

Significant New Works from Pacific Northwest Writers

By Brian R. Thompson

Books with importance far beyond their region: This describes many of the new plant titles written by Pacific Northwest authors. Continuing a "Washington Park Arboretum Bulletin" tradition of several years, the following is an overview of books by regional writers that have been published in the last year or so. All of them are available for further review at the Elisabeth C. Miller Library, and many can be purchased at the Gift Shop at the Graham Visitors Center.

Reference Books

• **Perennials: The Gardener's Reference**—Authors Susan Carter, Carrie Becker and Bob Lilly are best known for creating and maintaining the magnificent perennial borders at the Bellevue Botanical Garden. Drawing on over 200 years of collective plant experience, they have created an encyclopedia that organizes their knowledge in a well-structured A-Z format.

But what makes this especially valuable are the signed introductions to each genus (including guest authors) and the notes and comments throughout—all of them learned from working directly in the field. Of course it is a perfect fit for gardeners of the maritime Northwest, but the on-the-job commentaries make this book useful to gardeners in almost any temperate climate.

• **Encyclopedia of Garden Ferns**—Wow! This may be the crown jewel of an excellent assembly of local books for this year. If you are not a fan of ferns, Sue Olsen's infectious but very informative style will convert you. The descriptions, photographs (all by the author), and cultural details are all top notch and infused with that added extra insight only available from a writer who thoroughly knows her subject.

While perhaps not for the beginning gardener, I believe this book is well within the reach of anyone who has seriously embraced the craft. If that describes you, this is a must for your home library.

• **Sunset Western Garden Book**—Every new edition of the most venerable of West Coast gardening publications is a treat—bigger and better than before. Since the last in 2001, there are 500 new entries, a cleaner layout, highlights by subject experts and updated climate zones (although Western Washington looks unchanged). "Postcards" or short essays from each state (Washington's is written by Ciscoe Morris) warm up the introduction and give some personal perspective on the zone maps that follow.

Research

• **The Apple Book**—The origin of this commonplace fruit has long been uncertain, but University of Washington Botanic Gardens (UWBG) Director David Mabberley and co-author Barrie Juniper find answers in this fascinating story. The authors use the expected DNA analysis and other traditional botanical tools of discovery, but also geology, climatology and a study of bears and horses to

identify the first home (it was not Eden) of the sweet apple.

But they don't stop there. They trace the process by which the apple has become a worldwide food crop, an iconic element in the culture of many peoples, and even a "determined, effective, subversive influence" that challenges the global agribusiness complex by its ability to easily generate new varieties, giving hope that even a small-scale orchard or wild seedling could produce the next outstanding variety.

• **Plants of Haida Gwaii**—Haida Gwaii, known by many as the Queen Charlotte Islands, has a rich and distinctive history of using plants in all aspects of the life of the indigenous Haida people. Nancy Turner has completed a project of over 30 years to document these practices, and presents them here in a very thorough, yet quite readable presentation.

Organized using the indigenous taxonomic systems, the use of plants for food, medicine, technology and ceremony is interwoven with narratives of traditional stories and beliefs, often told through the interaction between plants and animals. These are juxtaposed with current issues of conservation, dealing with invasive species on these fairly isolated islands, and the disappearance of a way of life.

• **Invasive Species in the Pacific Northwest**—This collaboration of over 80 authors, most of them students at the University of Washington, is a field guide to the region's invasive species that includes not only the noxious weeds gardeners fear, but aquatic plants, animals, invertebrates and even diseases. Sarah Reichard, head of conservation for UWBG, is one of the three editors that managed the project.

The inclusion of the domestic cat is sure to get your attention, but a thorough reading describes a complex ecological web that will influence the way we look at the world around us, especially our gardens. The discussion of what constitutes an invasive species is fascinating in itself. A special section on these issues as they pertain to the Haida Gwaii is a nice companion reading to the previous book.

• **Restoring the Pacific Northwest**—A good companion to the previous one, this book details our major ecosystems, how they have worked historically, how that work has been interrupted, and possible corrections. These systems are defined first by plant zones or geographical features, such as bunchgrass prairies or tidal wetlands, and then re-examined as large-scale landscapes that cross zones, including urban natural areas and watersheds.

This is not a field guide, not a quick read and not cheap, but the more technical parts are brought to life by case studies from throughout the area. Invasive vegetation is given its own chapter, as is a study of ecological knowledge and restoration practices by

indigenous peoples. Editors Dean Apostol and Marcia Sinclair present a good survey of this large and important topic.

• **Wild Orchids of the Pacific Northwest & Canadian Rockies**—Another field guide, this one assists the user in identifying the wild orchids throughout areas in our region that include Alaska, western Alberta and Montana. Author Paul Martin Brown, of the University of Florida, has a series of similar titles covering North America, but he clearly has done his fieldwork in the Pacific Northwest. Appendices brim with reference materials, while slightly eccentric essays add fun to this useful book.

Gardening How-To

• **A Pattern Garden**—Val Easton's warm and clear writing style is very familiar, but her subject matter in this book breaks new ground as she applies the architectural concepts of patterns, or putting "human instincts into words," to garden settings. Throughout the work she "helps us to understand why we feel comfortable in a space" and why, in other places, we do not.

The patterns are not unfamiliar: Scale, Garden Rooms, Ornamentation, Containers, etc., but some associations may be new, such as grouping Patios, Sheds and Focal Points under destinations. This makes it important to read the book as a whole, even though you will return to favorite sections again and again for specifics. A short review of favorite plants concludes the book, but these are just one more pattern in the larger design.

• **Ask Ciscoe**—Ciscoe Morris writes in the same way that he talks, so you know this book will be fun. Less appreciated is the vast knowledge base that he has acquired from years of experience, both as a professional and as an avid home gardener.

That knowledge is presented in a Question (sometimes as funny as the answers) and Answer format, broadly organized into categories such as Flower Plants, Edible Plants, Garden and Lawn Care, etc. Good for the bedside table—to foster ideas as you read as little or as much as you want, or use the excellent index to find a specific topic. There is much more here—and it is all experience based—than first meets the eye.

• **Garden to Vase**—Linda Beutler thinks every gardener should be a florist, at least for his or her own home. On this premise she has written an extensive primer addressing all aspects of filling your vases (or whatever) for any and all occasions. Or for no occasion, other than to enjoy better the bounty of your garden. And the tips are great, such as how to "rinse" your daffodils so they do not kill the tulips you add to their arrangement.

The second half of the book is an A-Z listing of the best cutting plants, including growing tips, harvesting tips, vase life, when (or when not) to use preservatives, and what parts of the plant—seeds, flower, leaves, etc.—can be used, either fresh or dried. All this is clearly illustrated with Allan Mandell's excellent photos.

• **Natural Insect, Weed & Disease Control**—A Salt Spring Island, British Columbia entomologist, Linda Gilkeson is enthralled with the work of beneficial insects in the garden. This empirical manual is based on her experience, as the author gives her opinion on what works, and what does not. While the focus is on insects, weeds and diseases get their turn, too.

• **Coastal Gardening in the Pacific Northwest**—A transplanted Pennsylvania Master Gardener, Carla Albright writes to the very specific audience of her new, coastal Oregon home, a fact made clear by the title of the second chapter: "Dune Gardening." Topics include native beach plants, shore-tested vegetable varieties and even beach garden aesthetics.

• **The Bellevue Botanical Garden**—This is a perfect companion to "Perennials" described above, as the authors were influenced by the well-known Northwest Perennial Alliance Borders at the Bellevue Botanical Garden. Here, Marty Wingate tells how the Borders are part of a much greater whole brought together by a diverse group of plant lovers.

The detailed history is followed by descriptions in word and photo that highlight features and plants in each of the nine gardens, augmented with short profiles of key players. A Garden promotion, yes, but there is also some good history and enough about the individual plantings to take some ideas home, especially if this book accompanies your next visit to Bellevue.

In A Category All On Its Own!

• **Hortus Miscellaneous**—Whimsy, science, puzzles, construction plans, trivia, lists, do-it-yourself instructions—it's all here in this very hard-to-describe book. Lorene Edwards Forkner and the late Linda Plato have created a one-of-a-kind book that, like so many other books described in this column, travels well beyond the Pacific Northwest.

Turning to a random page, one finds a list of suitable plans for a knot garden, followed by the comparative definitions of monoecious and dioecious, sports teams with horticultural themes (The Fighting Okra?!?), and instructions on how to lay a flagstone pathway. You get the idea.

This wide-ranging book is a fitting conclusion to our list, as there is something for every plant enthusiast amongst this year's new titles. Enjoy your reading! ~

Brian R. Thompson is curator of horticultural literature at the Elisabeth C. Miller Library of the University of Washington Botanic Gardens and a regular contributor to the "Washington Park Arboretum Bulletin."

Bibliography

Albright, Carla. "Coastal Gardening in the Pacific Northwest: From Northern California to British Columbia." Lanham, MD: Taylor Trade Publishing, 2007. ISBN: 978-1589793170, $19.95.

Apostol, Dean and Marcia Sinclair, eds. "Restoring the Pacific Northwest: The Art and Science of Ecological Restoration in Cascadia." Washington, DC: Island Press, 2006. ISBN: (hardback) 978-1559630771, $99.95; (paperback) 978-1559630788, $49.95.

Beutler, Linda. "Garden to Vase: Growing and Using Your Own Cut Flowers." Portland, OR: Timber Press, Inc., 2007. ISBN: 978-0881928259, $29.95.

Boersma, P.D., S.H. Reichard, and A.N. Van Buren, eds. "Invasive Species in the Pacific Northwest." Seattle, WA: University of Washington Press, 2006. ISBN: 978-0295985961, $29.95.

Brenzel, Kathleen Norris, ed. "Sunset Western Garden Book, Revised and Updated Edition." Menlo Park, CA: Sunset Publishing Corporation, 2007. ISBN: (hardback) 978-0376039170, $39.95; (paperback) 978-0376039163, $34.95.

Brown, Paul Martin. "Wild Orchids of the Pacific Northwest and Canadian Rockies." Gainsville, FL: University Press of Florida, 2006. ISBN: 978-0813029009, $29.95.

Carter, Susan, Carrie Becker, and Bob Lilly. "Perennials: The Gardener's Reference." Portland, OR: Timber Press, Inc., 2007. ISBN: 978-0881928204, $49.95.

Easton, Valerie. "A Pattern Garden: The Essential Elements of Garden Making." Portland, OR: Timber Press, Inc., 2007. ISBN: 978-0881927801, $34.95.

Gilkeson, Linda A. "West Coast Gardening: Natural Insect, Weed and Disease Control." Victoria, BC: Trafford Publishing, 2006. ISBN: 978-1412085267, $19.13.

Juniper, Barrie E. and David J. Mabberley. "The Story of the Apple." Portland, OR: Timber Press, Inc., 2006. ISBN: 978-0881927849, $29.95.

Morris, Ciscoe. "Ask Ciscoe: Oh, la, la! Your Gardening Questions Answered." Seattle, WA: Sasquatch Books, 2007. ISBN: 978-1570614323, $18.95.

Olsen, Sue. "Encyclopedia of Garden Ferns." Portland, OR: Timber Press, Inc., 2007. ISBN: 978-0881928198, $59.95.

Turner, Nancy J. "Plants of Haida Gwaii." Winlaw, BC: Sono Nis Press, 2004. ISBN: 978-1550391442, $38.95.

Wingate, Marty. "The Bellevue Botanical Garden: Celebrating the First 15 Years." Bellevue, WA: Bellevue Botanical Garden Society, 2007. ISBN: 978-0979322105, $19.95.

Molbak's®
Celebrating 50 years.

Inspiring Gardeners Year-round
with a Distinctive Selection of...

- Trees
- Perennials
- Groundcovers
- Shrubs
- Annuals
- Vines

Free Horticultural Seminars
and Special Events

Woodinville • 13625 NE 175th Street • www.molbaks.com • 425-483-5000 • 1-866-466-5225

Arboretum Foundation

Washington Park Arboretum
2300 Arboretum Drive East
Seattle WA 98112-2300
www.arboretumfoundation.org

NONPROFIT ORG.
US POSTAGE
PAID
SEATTLE, WA
PERMIT NO. 126

**An arboretum
is a dynamic collection
of woody plants
for research, education,
conservation and display.**